

Critical Success Factors of Total Quality Management and their impact on Performance of Iranian Automotive Industry

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Abstract. This paper shows a model to conduct an empirical study in Iranian automotive industry in order to improve their performance. There are many factors which are effective factors in improving performance of Iranian automobile industry namely, leadership, customer focus, training, supplier quality management, product design, process management, and team work. The quality improvement plays a fundamental role in determining the performance in Iranian manufacturing industries. In this research, a model has been developed that includes Quality culture, Critical success factors of Total Quality Management and quality improvement to study their influence on the performance of Iranian automotive industry. It is hoped that this paper can provide an academic source for both academicians and managers due to investigate the relationship between Quality culture, critical success factors of Total Quality Management, Quality improvement, and Performance in a systematic manner to increase successful rate of Total Quality Management implementation.

Keywords: CSFs of Total Quality Management, Quality Culture, Quality Improvement, Performance Measurement, Iranian Automobile Industry,

1. Introduction

Global competition has increased during the past few decades. Nkechi Eugenia (2010) pointed out that customers are the only factor that can create competition between organizations, and quality of goods is determined by customers. Further, more customers identify the quality of products and make factories focus more on quality. Nowadays, gaining competitive advantage has become a matter of knowing your customers. As a matter of fact, customers have become the starting point rather than the ending point in any successful business. Nkechi Eugenia (2010) mentions that organizations for survival, need to create new management based on total quality management.

Demirbag et al, (2006) agreed that quality management is one of the most influential factors in every organization. Successful enterprises comprehend the dominant influence customer-defined quality could have on trade. Hence, many rivalry companies constantly enhance their quality models. If the firm does not consider quality, customers will be dissatisfied. The outcomes of such an approach are lost clients and chances for rivals to catch benefit of the market require (Reid & Sanders, 2007). Therefore, paying serious attention to customers' needs make quality a priority. As Reid and Sanders (2007) stated "It means gathering and surpassing customer anticipations by engaging each person in the firm inward a merged attempt". This integrated effort is named Total Quality Management (TQM). According to Demirbag et al., (2006) TQM is a factor that can improve quality and it is a holistic approach towards continuous improvement in all organizations. TQM is a management philosophy necessary for all organizations and this factor exists in a

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competitive environment. TQM is identified as an origin of innovation, competitive advantage, and organizational culture.

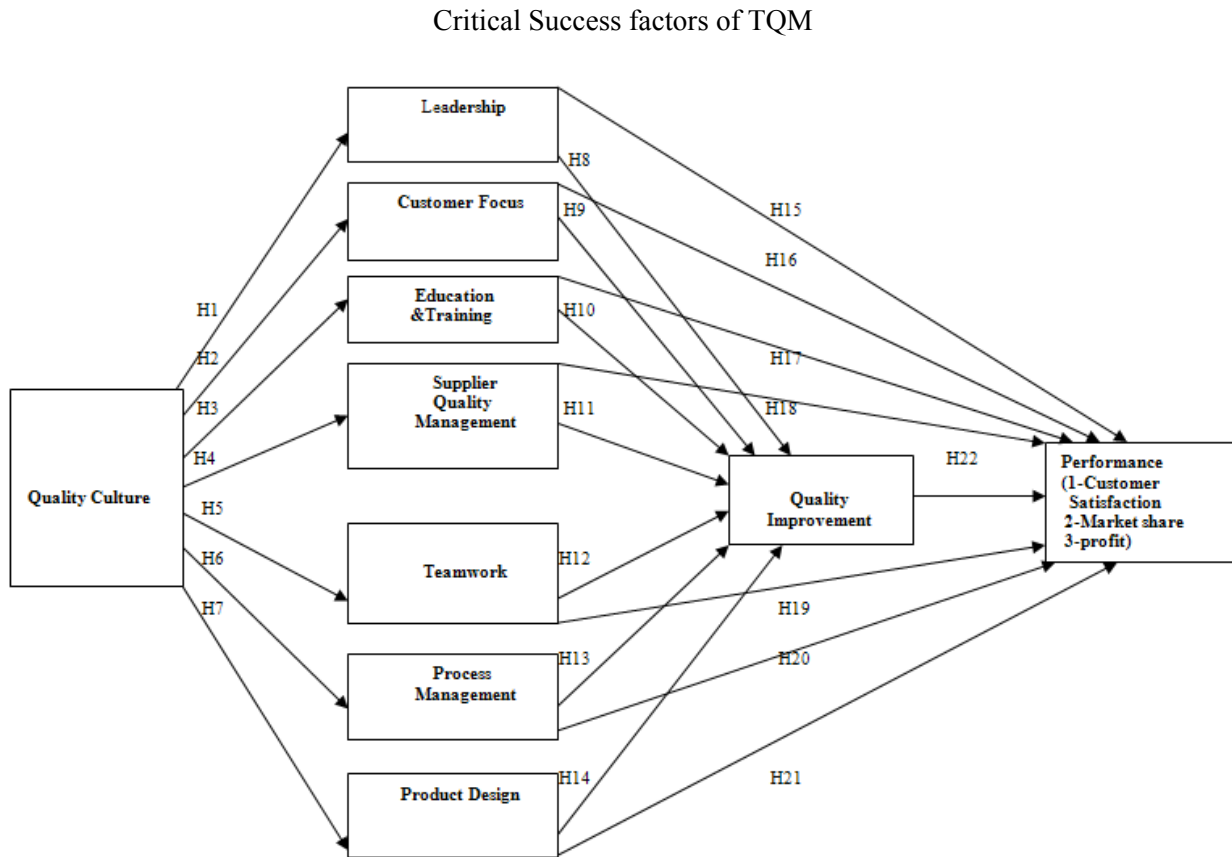
2. Literature Review

Critical success factors are the behavioral aspects of management styles or the human factors which emphasized on organization's total quality management. Rahman et al., (2005) & Lewis et al., (2006) pointed out that success factors include Leadership, Customer focus, Quality culture, Teamwork, Training, Communication, Product design and etc. Moreover, the efficient utilize of critical success factors can increase quality improvement in each organization. Kumar et al. (2009) referred to many articles and stated that although there are many definitions of TQM; generally TQM is a comprehensive procedure for improving quality, productivity and competitiveness in the international marketplace. In the same manner, Yang (2005) gives more details by expressing that total quality management is a general section of management which emphasizes competitive advantage, quality improvement, and customers' requirements. Total quality management is very effective in decision making, and problem solving. TQM also has a prominent role in the continuous improvement of organizations. TQM is a management integrative system for developing the quality of services and goods by means of the take part of all purposes and levels. Every person has a determining role in the production of quality services and goods. In another study, as cited by Wilson et al, (2000) TQM as an organization method for creating arrangement wide take part in scheming and creating a continuous improvement action that joins and increases customer requirements. Mahmood et al, (2006) indicated that Quality culture is the pattern of arrangement materials or behavior that has been accepted by a society (team, band) as the admitted way of resolving difficulties. An association of a 'quality culture' can be defined as one having "clear values and beliefs that foster total quality behaviour". Quality culture is the main component in a successful total quality management plan. Exchanging the culture of a firm is an important condition for successful implementation of TQM. There are many elements that define quality culture namely leadership, training, SQM, team working, process management, and etc. Sardana (2008) revealed that performance measurement can be measured as a process that is effective in representing goals and this factor is a symbol in showing the ultimate result of a firm. Kennerley and Neely, 2002 (as cited in Sardana, 2008) pointed out that performance measurement is a factor that can be effective in decision making because without performance measurement we cannot estimate the purpose of the organization. On the other hand, by using this factor, efficiency and effectiveness of every organization can be improved. As a result, performance measurement is effective when this factor leads to good decision making in an organization. As a rule of the thumb, performance measurement is one of the factors that focus on the development and improvement of the organization and this factor is very effective in improving performance. Abdullah, et al, (2009) studied the connection between TQM, quality improvement, and performance measurement and identified six critical success factors (leadership, supplier quality management, reward & recognition, teamwork, E&T, customer focus) on performance. His findings were also relevant to quality management theory because it shows total quality management to be effective in quality management implementation and organizational performance.

Furthermore, Kanji et al, (1997) pointed out that critical factors of total quality management are positively related to quality culture. Quality culture was studied as an independent variable. In the same way, Zu et al, (2010) pointed out that quality culture is an independent variable to critical factors of total quality management. On the other side, as cited by Abdullah et al, (2009) quality improvement is an intervening variable between TQM success factors and performance. This study has modified the developed framework by Abdullah et al, (2009) and Zu et al, (2010). Then, the combining of two previous studies can bring new contribution for this study. This model has not examined by any study. Therefore, the contribution of this study is combination of quality culture as an independent variable to total quality management factors and also would want to consider quality improvement as a mediating variable between TQM factors and performance for continuous survival of the Iranian automobile industry.

As demonstrated below (the theoretical framework of the study, see Figure 1) there is a positive connection among quality culture, CSF of TQM, Quality Improvement and PM.

Figure 1: Theoretical Model of the study



2.1. Hypotheses Development

The hypotheses of this study are developed as following:

- H1: Quality culture is positively related to leadership
- H2: Quality culture is positively related to customer focus
- H3: Quality culture is positively related to training
- H4: Quality culture is positively related to supplier quality management
- H5: Quality culture is positively related to teamwork
- H6: Quality culture is positively related to process management
- H7: Quality culture is positively related to product design
- H8: Management Leadership is positively related to Quality Improvement
- H9: Customer Focus is certainly related to Quality Improvement.
- H10: Training is certainly related to Quality Improvement.
- H11: Supplier Quality Management (SQM) is positively related to Quality Improvement.
- H12: Teamwork positively affects Quality Improvement
- H13: Process Management (PM) is explicitly connected to QI (Quality Improvement)
- H14: Product Design (PD) is positively related to QI (Quality Improvement)
- H15: Leadership is positively related to Performance Measurement.

- H16: Customer Focus is positively related to Performance.
- H17: Training is positively connected to Performance
- H18: Supplier Quality Management is directly connected to Performance measurement.
- H19: Teamwork is positively and directly connected to Performance.
- H20: Process Management is positively related to Performance Measurement.
- H21: Product Design is positively related to Performance Measurement
- H22: Quality Improvement is positively related to Performance

3. Conclusion

The aim of this research is to carry out an empirical study on the determinants of TQM in the Iranian Automotive Industry. The main contribution of this paper is to persuade managers to take a serious attention on the relationship among TQM determinants, quality improvement, and performance improvement in the Iranian Automotive Industry. Investigating the relationship led us to lucrative outcomes. The Iranian automobile industry has specifically been chosen for several reasons. First, the automotive industry is the second most active industry in Iran after the oil and gas sectors. Second, it contributes as a major factor to the country's GDP growth. Third, the sector directly employs 2.3% of the country's workforce. Fourth, the industry is looking forward to exporting its products to the global markets. Due to stiff competition, turbulent business environment, increasing customers' expectations, and increasing demands of the Iranian Automotive Industry, TQM is considered a serious problem faced by the sector. Due to lack of studies on the above addressed problem in the country, attempts are being made to investigate the determinants of TQM in the Iranian Automotive Industry. This study, theoretically reviewed prior literatures on the same problem in other countries. The aim was to shed some light on the research problem. A survey is designed in order to conduct an empirical research for examining survey's hypotheses. It is hoped that the important facts addressed in this paper will be a means whereby managers and researchers will be able to investigate the TQM problem in the Iranian Automotive Industry with better awareness.

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